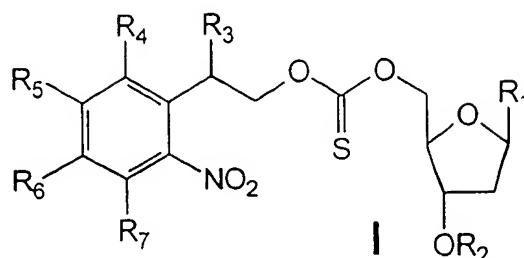


Patent Claims

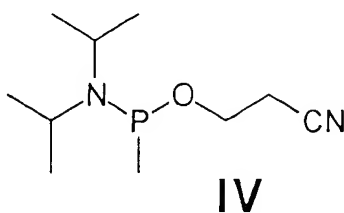
1. Nucleoside derivatives, of the general formula I,



wherein

R₁ represents a nucleobase or a nucleobase provided with at least one protective group,

R₂ indicates an H atom or a diisopropylamino-(2-cyanoethoxy)phosphinyl group of the formula IV




R₃ is an H atom or an alkyl residue with up to 4 C atoms,

R₄ represents an H atom, a nitro group or an alkyl residue with up to 4 C atoms,

R₅ and R₆, independently of one another, represent an H atom, an alkyl residue with up to 4 C atoms, or an alkoxy residue with up to 4 C atoms or together represent a methylenedioxy group,

R₇ is an H atom or an alkyl residue with up to 4 C atoms.

2. The nucleoside derivatives according to claim 1, further characterized in that R₁ is adenine, cytosine, guanine, thymine, uracil or hypoxanthine, which optionally bear a protective group.

 3. The nucleoside derivatives according to claim 1 or 2, further characterized in that

R₃ is an H atom, a methyl or an ethyl group.

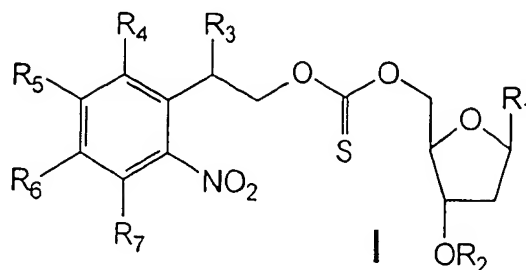
4. The nucleoside derivatives according to one of the preceding claims, further characterized in that

R₄ is an H atom, a nitro group or a methyl group.

5. The nucleoside derivatives according to one of the preceding claims, further characterized in that

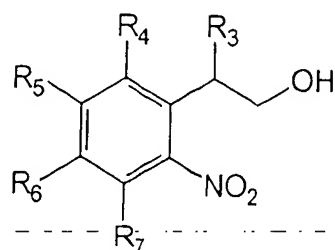
R₅ and R₆, independently of one another, represent an H atom, or a methyl, ethyl, methoxy or ethoxy group or together form a methylenedioxy group.

6. A method for the production of a nucleoside derivative of the general formula I



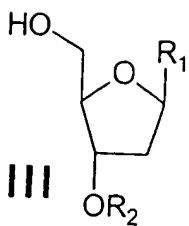
wherein the residues R_1 , R_2 , R_3 , R_4 , R_5 , R_6 and R_7 have the meaning given in claim 1,

wherein a compound of the general formula II, which is known in and of itself



wherein the residues R_3 , R_4 , R_5 , R_6 and R_7 as well as n [sic] have the meaning indicated in claim 1,

is reacted with thiophosgene and the thus-obtained thiocarbonyl chlorides are reacted with a compound of the general formula III



wherein the residues R₁, and R₂ have the meaning indicated in claim 1.

7. Use of the nucleoside derivatives according to claim 1 for the automatic synthesis of oligonucleotides.

8. A kit for the automatic synthesis of oligonucleotides comprising at least one nucleoside derivative according to claim 1, optionally together with other nucleoside derivatives according to claim 1 and reagents and adjuvants as well as solvents and operating instructions.